Montana Means Energy: August 2011

August 2011

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We have all heard of the almost uncontrollable growth in North Dakota, but that has been the result of the geology, not what some like to politically argue, such the misnomer that Montana has higher taxes or regulation. According to the conservative Tax Foundation state rankings, Montana is ranked as the 6th best tax climate in the nation, and our neighbor, North Dakota, comes in at 20th.

If you talk to the oil industry, as I have, they will tell you that the answer to where drilling takes place lies within the shale formation and the accessibility of the resource. The Bakken is thicker in North Dakota and is also under more natural pressure than in Montana. This equates to wells that produce more oil more rapidly than wells farther to the

west. Record wells in North Dakota have produced over 5,000 barrels a day; record wells in Montana have produced over 3,000 barrels per day. Companies are locating their initial wells in North Dakota because that is where the play currently produces the highest yields, but as those wells drop in production companies will begin to move west. Again, that is anticipated based upon the aggressive leasing that is going on in Montana right now.

In fact, when you look at the "political concerns," Montana actually has a lower tax burden per barrel of oil produced compared to North Dakota, according to a study conducted be the Montana Department of Revenue (DOR). DOR found that over a four year average, FY 2005-2009, Montana's average taxes paid per barrel of oil were only $4.89/barrel, while North Dakota was $5.27/barrel, a significant amount when you are producing hundreds of thousands, even millions, of barrels of oil.

Both states' production taxes are regarded as very competitive by industry. Industry operators in the region have also stated that Montana has a good operating environment and that the regulatory environment does not deter them from operating in Montana. On average a permit application in Montana takes 60 days, under the statutorily allowed 75 days, while a permit in North Dakota takes the statutorily allowed 365 days.

This past session I signed legislation reforming Montana's Work Comp system bringing an average 20% savings to employers' work comp expenses. In addition, I signed legislation that again reduced the business equipment tax. Both will have a positive effect on business and job growth.

When the political rhetoric heats up, Montanans must be mindful of what is said about our business climate, and look at the facts which show that we are a great place to do business. So, when talking to others about development in Montana, tout the job we have done to make Montana one of the best places in the nation to start, build, and grow a business.

Coal Updates

Otter Creek

Arch Coal, the company developing the ~1.5 billion tons of coal on the Otter Creek coal tracts, has continued progress in developing a mine to take advantage of this rich coal resource. Arch plans to develop a surface mine to serve coal to the northern US power generation market as well as for export into the Pacific Rim via the West Coast.

Their progress on the Otter Creek tracts to date includes: establishing an office in Billings; securing permit consultants; initiating environmental studies including drilling some 70 test wells; completing preliminary mine planning; and initiating stakeholder outreach with Powder River and Rosebud counties, the city of Ashland and the Northern Cheyenne tribe.

Arch has indicated that the planned mine will be in Powder River County and will be a surface mine employing a dragline excavator to remove the overburden and expose the coal.

West Coast Port Developments

The developer of a port in Washington to move Powder River Basin coal withdrew their permits this spring and has begun the process of submitting an updated plan this summer. Millennium Bulk Terminals had received approval from the Cowlitz County commission in late 2010 but decided to reinitiate the permitting process after objections from environmental groups on the scope of the existing environmental review. Millennium, owned by Australian coal company Ambre Energy along with 38% ownership by Arch Coal, continues to invest in cleaning up the site, former home to an aluminum smelting operation, as they pursue permits to export as much as 60 million tons of coal per year from the terminal.

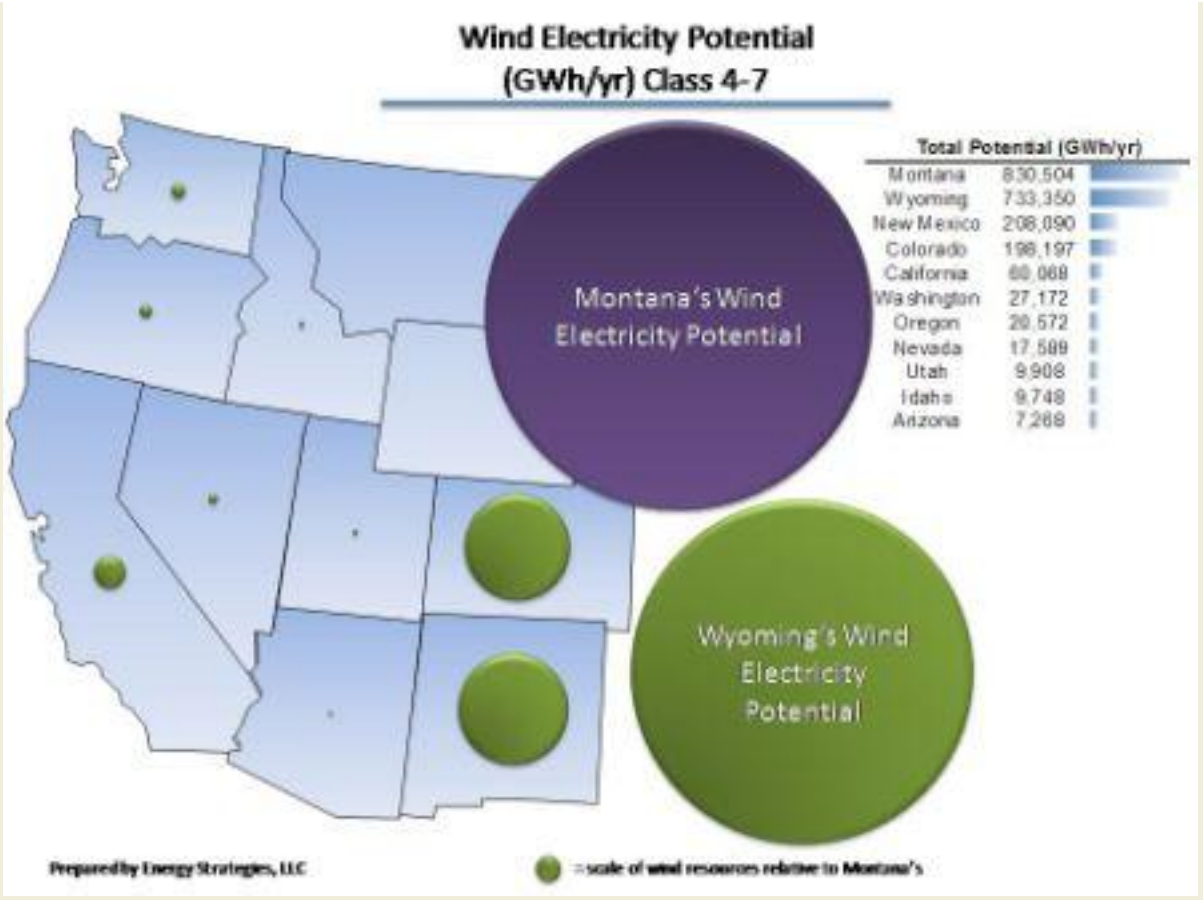
There is also growing interest in developing coal terminals at ports in Oregon. Coyote Island Terminal, LLC, another subsidiary of Ambre Energy, has signed a one-year lease option with the Port of Morrow and there are indications that the Port of St. Helens has been in discussions with coal developers.

The increased interest in developing west coast coal terminals is due to the rapidly growing demand for coal in Asia. The US Energy Information Administration predicts world coal consumption will increase by 56% from 2007 to 2035 with China being responsible for approximately 90% of the growth. Currently less than 4% of Montana coal is exported out of the country but that number will likely increase with the advancement of one or more of these ports, driven by the high demand Pacific Rim countries have expressed for the low sulfur and low ash coal found in Montana.

Transmission Updates

MATL

Expanded transmission is needed if Montana is to fully develop its world class energy resources, particularly wind energy. Montana's wind resource is rated the greatest in the West and among the best in the nation. However, additional transmission capacity linking wind rich Montana with energy hungry load centers on the coast and in the southwest is needed if the state is to fully develop its huge wind energy potential.



The Montana Alberta Tie Limited (MATL) is a 230 kV transmission line project connecting Lethbridge, AB with Great Falls was under construction until this spring when delays related to landowner issues and project cost overruns caused the company to suspend construction.

Landowner issues intensified following a District Court ruling in December 2010 that Tonbridge Power, the MATL project developer, did not have eminent domain authority to acquire right of way. Tonbridge Power, along with Montana utility companies NorthWestern Energy and Montana Dakota Utilities objected to the court ruling. This lead to the passage of House Bill 198 in the 2011 legislature that modified state law on the issue of eminent domain such that FERC regulated merchant transmission developers like Tonbridge Power now clearly have eminent domain authority by virtue of obtaining a permit for the project under the Montana Facilities Siting Act. Tonbridge has acquired approximately 80% of the needed right of way in the US and 100% in Canada for the project and is currently in negotiations or has filed eminent domain proceeding with landowners to acquire the remaining 20% of its needed right of way.

On August 16 Enbridge Inc announced plans to acquire the MATL project by buying developer Tonbridge Power for

$20.4 million, making this an entry for the pipeline operator into electricity transmission. Enbridge, best known as the main transporter of Canadian oil to the United States, has agreed to buy the shares of Tonbridge Power Inc for 54 Canadian cents apiece, giving it control of the Montana Alberta Tie Line project. This announcement came in the wake of MATL working closely with the Western Area Power Administration (WAPA) to address a $25-$50 million cost overrun issue. WAPA is the primary funder of the MATL project having completed a $161 million direct loan deal with Tonbridge Power. This announcement paves the way for construction to resume on the project as early as the end of August with the intent of completing it by the end of 2012. Enbridge is a producer of 860 MW of renewable energy through a portfolio of wind, solar and geothermal projects. Following the acquisition, Enbridge will inject the money needed to finish the first 300 megawatt phase and an expansion to 550-600 MW.

The Rim Rock wind farm, being developed by NaturEner USA, will connect 189 MW of wind energy production to the completed MATL line. The California Public Utilities Commission recently approved a unique $250 million tax equity investment by San Diego Gas and Electric in the Rim Rock wind farm. NaturEner is poised to commence construction on Rim Rock this fall with the intent of completing the project by the end of 2012.

MSTI

NorthWestern Energy's Mountain States Transmission Intertie (MSTI) project is the focus of a partnership bringing scientific and economic expertise together with organizing and outreach skills. Calling itself the Northern Rockies Clean Energy Partnership, it consists of planning professionals representing the Sonoran Institute, Western Environmental Law Center, Renewable Northwest Project, Headwaters Economics and Future West. The partnership formed in 2010 to help elected officials in Madison County to better understand the impacts of the proposed MSTI transmission line.

This summer research and analysis from the partnership's work for Madison County will be complete with a forthcoming report that will contain background material on clean energy and transmission, a GIS siting tool and an economic analysis of the MSTI project. The partnership indicates that interest in the partnership's work has spread beyond the borders of Madison County, and the BLM (with MT DEQ) plans to integrate the partnership's findings into the draft Environmental Impact Statement on MSTI expected to be released in early 2012.

BPA/ FERC Updates

Montana Intertie Update

In a record of decision (ROD) issued on July 26th on its 2012 transmission rate case the Bonneville Power Administration determined that the Montana Intertie (IM) transmission rate will not be rolled into the network rate. This IM rate "pancake" has been identified by many Montana wind power developers as an additional transmission cost that inhibits increased wind generation in the state. Governor Schweitzer wrote a letter in 2009 to BPA Administrator Stephen Wright asking BPA to consider eliminating the IM rate so as to help develop Montana's world class wind resource. Administrator Wright advised that this issue should be addressed in the formal 2012 rate case proceedings. As part of the 2012 rate case process BPA held workshops starting in the spring of 2010 that analyzed the impact that eliminating

the IM rate would have on BPA's network costs. The results of those workshops produced estimates developed by BPA staff that, under a variety of different scenarios, eliminating the IM rate would have a little or no impact on BPA network system costs.

However, the ROD on the IM rate issue states that BPA did not find enough compelling information to eliminate the IM rate and expressed concern that rolling in the IM rate would set an undesirable precedent that may also be requested for the Southern Intertie. BPA pledged to hold more workshops, to be held starting in fall of 2011, in order to discuss the issue as preparation for the 2014 rate case. Ted Williams, head of transmission for Montana wind developer Gaelectric, stated at a recent Montana Wind and Transmission Working Group meeting that BPA did good work but disagrees with their conclusions and feels that BPA missed an opportunity to encourage renewable energy generation in Montana. Ted further stated that he is not sure what additional information will be generated at the upcoming BPA workshops that have not already been covered.

BPA Network Open Season 2010 Update
Bonneville concluded their third Network Open Season (NOS) in May, 2011. Montana wind developer Gaelectric submitted nearly 1000 MW of transmission service requests in the open season. One of the projects analyzed in the NOS process is the Colstrip Upgrade Project West (CUP West) that is a proposal to complete upgrades that will expand the capacity of the Colstrip 500 kV transmission line. BPA concluded that 480 MW of additional capacity can be brought into the system at network rates pending the outcome of one final technical study expected to be completed in September 2011. These BPA network upgrades along with planned upgrades to this same Colstrip line east of Townsend, that are owned by a group of utility companies including NorthWestern Energy, will allow for expanded wind development to occur in Montana. Officials from NorthWestern Energy anticipate that the Colstrip line upgrades could be completed and ready for service by 2014.

Understanding The Bakken Oil & Gas Play

One of the largest energy development prospects in Montana is the Bakken Oil and Gas Formation. The formation covers approximately 25,000 square miles in Montana, North Dakota, and Saskatchewan and holds some the largest reserves of high quality oil and gas in North America. The Energy Promotion and Development Division recently attended a tour of the Bakken region put together by the Big Sky Economic Development Authority. The purpose of the tour was to gain firsthand knowledge of the development of this resource in Montana and North Dakota and to understand what implications and opportunities this development may have in store for Billings' businesses, as well as the state as a whole.

Figure 2. *Map showing boundary of Bakken-Lodgepole Total Petroleum System (TPS) (in blue), five continuous assessment units (AU) (in green), and one conventional AU (in orange) defined for the assessment of undiscovered oil resources in the Upper Devonian–Lower Mississippian Bakken Formation in the U.S. portion of the TPS. The outermost green line defines the area of oil generation for the upper shale member of the formation.*

(Image from USGS)

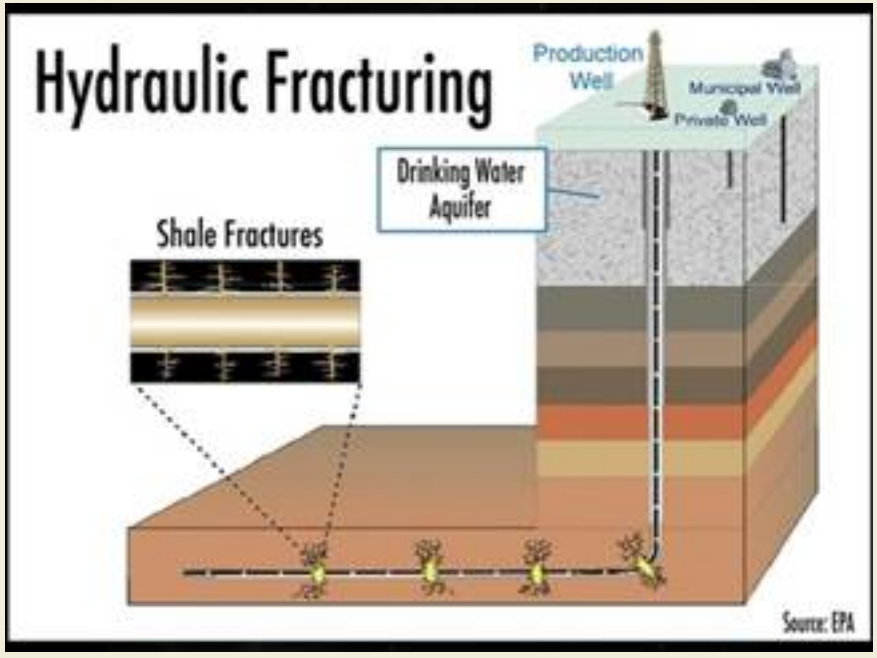
The USGS estimated that there are 400 billion barrels in place and up to 4.3 billion barrels of recoverable oil in the Bakken formation; this geological study was conducted in 2008. However as the Bakken play has developed and the technologies used to recover the oil have been remarkably successful, another assessment by USGS geologists is scheduled to begin in the fall of 2011. This reassessment will give a more thorough review of the resource and is predicted to dramatically increase the estimated reserves of the Bakken. Harold Hamm, CEO of Continental Resources, believes that recoverable reserves will likely reach 24 billion barrels of high quality crude oil. The study will also assess the Three Forks formation which lies directly below the Bakken and may hold comparable reserves. To put those numbers in perspective, the United States consumes over 7-8 billion barrels of oil every year.

Since the implementation of horizontal drilling and hydraulic fracturing technologies, not a single well in the Bakken has come up dry. According to the Montana Board of Oil and Gas, Montana's Bakken resources are 100% leased. Industry officials are not describing the Bakken development as an oil boom, but rather a vast resource that will keep industry in the region for decades so long as prices remain stable. The drilling techniques used in the Bakken require more science, technology, and material than a conventional vertical well, all of which increase the cost of recovery. The breakeven point for producers is $55 per barrel.

The Bakken is a tight shale rock formation that ranges from 30 feet to 150 feet thick. Small pockets of oil are trapped within this shale; horizontal drilling and hydraulic fracturing have unlocked these reserves by creating fractures within the rock through which oil can easy flow. These technologies have been used in the Bakken since 2006, and have had a 100% success rate.

This is how drilling takes place:

- The vertical portion of the well is drilled to a depth of approximately 9,000 feet. The borehole is encased in several layers of steel pipe and concrete.
- Over a quarter of a mile, the well turns horizontal, running parallel within the Bakken shale.
- The horizontal section extends about a half a mile and is then fractured in sections.
- A section, or stage, of the pipe is perforated with an explosive.
- Frac'ing fluid, a mixture of water, sand and chemicals, is then pumped down the pipe, through the perforations and into the shale.
- This section, or stage, is isolated from the rest of the well.
- A second explosive is detonated to apply pressure within the section, forcing the frac'ing fluid to expand fractures within the shale.
- Frac'ing fluid is pumped out of the well, recycled and disposed.
- This process is repeated 20-50 times within the horizontal section of the well.
- Frac'ing components are removed and the incased well is ready for production.



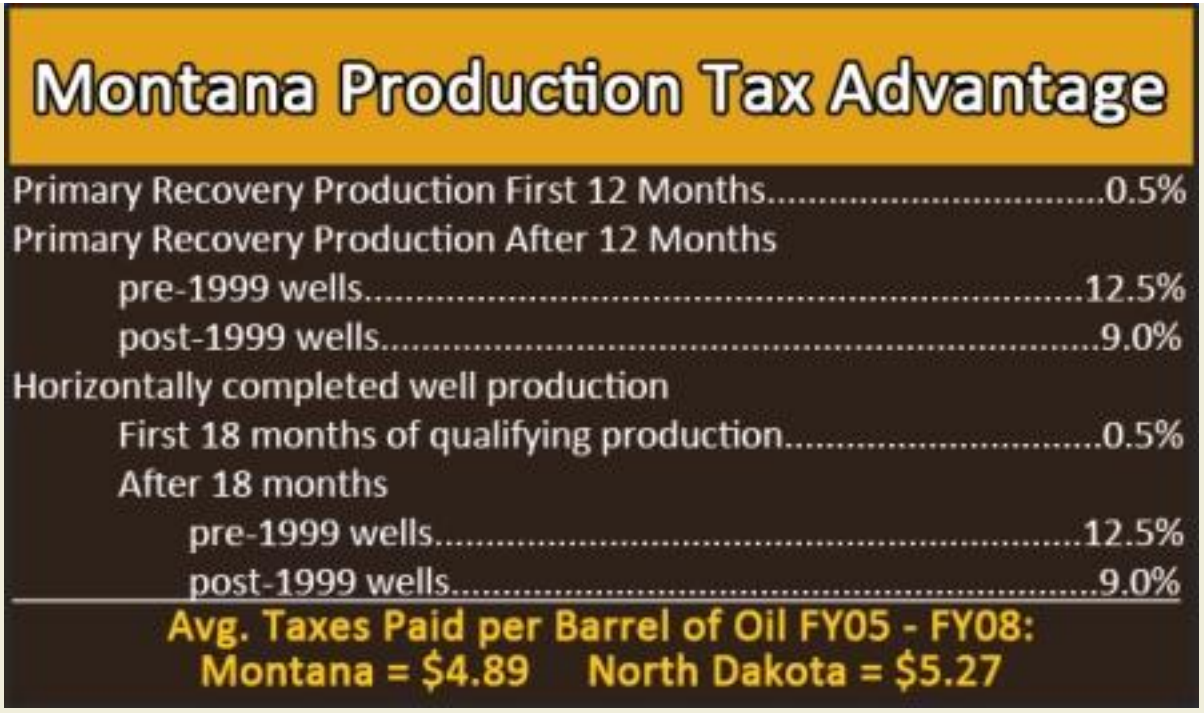
(Not to scale.)

Despite the successes of these technologies, their application has come under scrutiny. Communities have feared that the practice may contaminate drinking water and ground water supplies. Hydraulic fracturing has been used in eastern states to recover natural gas and gases did contaminate some local wells. Hydraulic fracturing also uses flac'ing fluid which contains a number of chemicals that are harmful if consumed. Montana is among ten states that have adopted or proposed rules regarding the disclosure of the contents of a company's frac'ing fluid. Many companies have voluntarily begun to post the contents of their frac'ing fluid online at FracFocus.org; however, companies maintain that disclosure of certain chemicals used in their frac'ing mixture is not good business. These chemicals are considered necessary trade secrets that differentiate one company's frac'ing fluid, and possible success, from another's. The rules recently adopted by the Montana Board of Oil & Gas can be found here.

There have been no contamination incidents from hydraulic fracturing in the Bakken play. A typical aquifer or water table is anywhere from 30 feet to 1,000 feet below the surface; the shale formations that are being fractured are approximately 10,000 feet below the surface and fracturing typically extends only 15 feet out from the horizontal portion of the well.

Understanding what it takes to extract oil out of the Bakken formation is important to understanding what implications development of this resource may have on Montana communities. These drilling techniques require more manpower, more technology, more energy, more oversight and more capital. All of these demands have impacts on communities and can overwhelm current infrastructure and logistics. The tour of Williston, North Dakota attended by the Energy Promotion and Development Division was a testament to industry outpacing a community's ability to cope.

Since 2006, the Bakken in North Dakota has become the fastest growing oil play in the country, if not the world. As the Bakken extends into Montana, many have asked, "why not Montana?" While some argue that high taxes and over regulation must be the culprit, that is not what we have heard from industry; the answer lies within the geology of the shale formation and the accessibility of the resource. The Bakken is thicker in North Dakota and is also under more natural pressure than in Montana. This equates to wells that produce more oil more rapidly than wells farther to the west. Record wells in North Dakota have produced over 5,000 barrels a day; record wells in Montana have produced over 3,000 barrels per day. Companies are locating their initial wells in North Dakota because that is where the play currently produces the highest yields, but as those wells drop in production companies will begin to move west.



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North Dakota and eastern Montana have experienced oil booms before. Memories of a boom and bust that left communities in dire straits economically are still vividly on the minds of local residents. Currently, Williston is absolutely overwhelmed by the growing industry. While the influx of immense capital may be good for the economy on a large scale, the communities are suffering. Tom Rolfstad, Executive Director for Williston Economic Development, stated, "We are in a crisis." The population of Williston has nearly doubled in four years putting stresses on local infrastructure that are far too great for local governments to handle. The waste water treatment plant is at full capacity, the roads are deteriorating faster than they can be repaired due to immense truck traffic, housing is at a premium creating inflated values, crime rates have increased, school populations are increasing but teachers are leaving to make better money in the oil fields, local businesses are closing because they cannot retain employees who can double or triple their wage by working for the oil industry, and the list goes on.

These negative impacts do not paint a pretty picture but when you see the economic activity you cannot help but be amazed, and a little jealous. Williston is expanding their university campus, they are building offices and industrial

parks to house major corporations, hotels are booked for years, city and county planners are inundated with building permit requests, and the revenue base continues to expand. Williston now is retroactively addressing the many challenges placed upon them by the industry.

All of this is heading to Montana in the near future. The important consideration is what can we do to better prepare? What can we do so that Sidney does not experience the same growing pains as Williston? We need to ask ourselves the right questions. What infrastructure should be expanded? Where will housing be developed? How much housing should be temporary? How do you address the income gap? Are taxes and regulations at levels that won't impede development but will continue to provide the quality of life that Montanans expect?

Eastern Montana is on the brink of an economic surge. We are fortunate to have North Dakota to look to as an example of successes and shortcomings. We have time to prepare, but we must start now. What northeastern Montana will look like in five to ten years is uncertain but largely up to us. It will take a collaborative effort by local businesses, residents, and governments to make the most of this economic opportunity. What we can be sure of this, THE RIGS ARE COMING.

EPAC Hosts 21st Annual Agricultural Biofuels Summit

The Montana Ethanol Producers and Consumers (EPAC) convened in Great Falls on June 7th and 8th for their 21st Annual Conference/Agricultural Biofuels Summit. For twenty years, the non-profit EPAC has been advocating for the economic, environmental, and social benefits of increased biofuels production in Montana. The Agricultural Biofuels Summit offered attendees the chance to learn from and network with researchers, project developers, and regulators from around the state and country. Highlights of the conference included presentations on the market conditions for dried distillers grains, ethanol from crop residues, and a barley based ethanol and feed project slated for Montana. The DEQ hosted a biodiesel conference on the second day of the conference. Presentations from the conference are available on the EPAC website.

On the Road with EPDD

CORE Wind Power and AACT
In June, EPDD's Dan Lloyd along with Brian Spangler from DEQ and Chris Aageson from the Governor's Office of Economic Development traveled to the Flathead to visit two innovative energy projects that have received funding from the DEQ.

The first stop on the trip was in Ronan to visit CORE Wind Power who is developing a 3-megawatt direct-drive wind turbine. The CORE technology, which stands for Conductor Optimized Rotary Engine, utilizes a number of innovations that will result in a low weight, low maintenance, and low cost wind turbine. For example, the CORE design utilizes a printed circuit board stator (the static part of an engine's rotary system) rather than a mechanically wound one as is typical. This method results in a low cost, highly automated, and quality controlled manufacturing advantage. CORE

was awarded a $500,000 Recovery Act grant by the DEQ in 2010 to move this product to commercialization as well as to build the first full scale prototype. Progress on the prototype continues with wind tunnel testing completed and deployment of the full scale model expected by the end of the year.

The visit of Algae Aqua Culture Technologies (AACT) at the Stolze Lumber mill in Columbia Falls included tours of both their lab-scale production facility as well as the nearly completed commercial-scale greenhouse. AACT was awarded $350,000 to develop a commercial-scale algae greenhouse that will convert waste wood chips into an organic fertilizer near Columbia Falls. The company has developed a process to convert biomass and waste gases into alternative energy and organic fertilizer. AACT's first-stage involves growing algae in a 5,500 square-foot greenhouse at the Stolze Lumber yards. A two-stage anaerobic digester process is planned to produce methane gas, which will be burned along with wood waste for mechanical power in the mill. Biochar from wood waste combustion and waste from the algal processes will be used to make an organic fertilizer co-product.

Rockin' the Bakken Tour

Program Manager Tom Kaiserski and Energy Development Specialist Dustin de Yong attended a tour of the Bakken oil and gas play titled *Flockin' to the Bakken* and put on by the Big Sky Economic Development Authority. The tour's purpose was to explore opportunities for Billings-based business as the Bakken oil and gas development expands. There are already jobs streaming into Montana as many products and services are needed to support the rapid growth in northeastern Montana and western North Dakota but expanded growth is predicted to create even more jobs. Tom and Dustin attended the tour to gather a better understanding of what impacts this expansive resource is having on the state and its communities.

Tour attendees ranged from major financiers to interested citizens of the area, which provided for a broad perspective throughout the tour bus. What the group found was an explosive but still emerging energy industry in northeast Montana and North Dakota. While Montana was the first to see development in the Bakken, overall, we have not experienced the level of investment and development as North Dakota. Those on the ground producing the sweet crude oil stated that it would not be long before large scale investment came to Montana. Operators stated that Montana has a good operating environment with reasonable regulations and a very competitive tax structure.

The group learned that there is immense opportunity surrounding this play, and that it will not be a boom and bust development as the region has experienced in the past. The technologies implemented in the Bakken play have made drilling success rates near perfect, combine this with an increasing estimate of the recoverable reserves in the region and you have an industry that is preparing to set up shop for decades to come.

Tom, Dustin, and the Energy Promotion and Development Division would like to thank the Big Sky Economic Development Authority for this opportunity. It was a great learning experience for all involved and the knowledge that we have gathered will serve the State of Montana and its people. For another view on the tour check out this article in the Big Sky Business Journal.

2011 Energy Open

Tom Kaiserski and Dustin de Yong attended the 8th Annual Energy Open on August 11th and 12th in Colstrip. The Montana Department of Commerce helps sponsor the annual event. The Southeastern Montana Development Corporation (SEMDC) and Montana for Responsible Energy Development (MRED) organized the conference which showcased some of the economic benefits of responsible energy development. On August 10th, MRED held their monthly meeting at the SEMDC offices in Colstrip; both Tom and Dustin attended. The agenda revolved around council business, financial status, membership levels and council election, as well as updates on the energy industry. A recently published op ed by Chairman Mack Cole focused on the benefits the Exxon Mobile has brought to Montana despite the recent pipeline spill in to the Yellowstone River.

The conference was held in the Colts and Phillies High School Auditorium and was kicked off by Mayor, and Master of Ceremonies, John Williams who reminded the crowd on several occasions what the local energy resource, coal, has provided for area schools and other essential infrastructure. A scholarship was provided by the SEMDC to Colstrip High School graduate, Jordan Crippen, who will be majoring in Computer Science this fall at the University of Montana. A second scholarship was also provided through the conference and partially funded by an impromptu long putt contest organized by Representative Duane Ankney; this scholarship is awarded to a student enrolled in the Heavy Equipment Operations Program at Miles Community College in Miles City.

Tom Kaiserski led the conference in an in-depth look at the state's energy resources and some ongoing activities within the industry. Tom also provided an overview of the mission, goals, and responsibilities of the Energy Promotion and Development Division (EPDD). Conference attendees were pleased of the work of the EPDD and said that Program Manager Tom Kaiserski "really had his finger on the pulse of the energy industry."

Representative Duane Ankney provided his take on energy industry as a man who represents a constituency that largely benefits from revenues derived from the mining and burning of coal. The good Representative noted that it is hard to deny the power of coal. Its abundance, affordability and effective use as an energy resource are unparalleled in the energy sector, which make this abundant Montana resource a major player for decades to come. He emphasized that misinformation create perceptions about the coal industry that simply do not represent reality. The best way for us to combat these perceptions is to provide the facts to our young people. In a recent trip out east to see his son who serves in the armed forces, Ankney had a discussion with some his son's colleagues. He was impressed by their knowledge of the energy industry and their understanding of how the mining and burning of coal means that fewer men and women in rank would be put in harm's way. In short, Representative Ankney stressed the need for continued responsible development of our energy resources and that the facts about the industry need to be presented in order to defeat false perceptions that halter the advancement of Montana's vast energy portfolio.

The conference then broke for tours of the Colstrip Power Plant, the Rosebud Power Plant, the Rosebud Coal Mine and Reclamation site, and the Otter Creek coal tracts recently leased by Arch Coal. EPDD toured the Rosebud Power Plant and the Otter Creek coal tracts. The Rosebud Power Plant is a 41.5 MW plant that burns waste coal not utilized by the Colstrip plant down the road. This is the coal that is at the top and the bottom of the seam. The plant utilizes a circulating fluidized bed (CFB) boiler which suspends solid fuels on upward-blowing jets of air during the combustion process. These boiler systems are often used in biomass applications as well.

Mike Rowlands, Arch Coal's Director of Otter Creek Operations in Montana, was on hand to discuss the Otter Creek coal tracts and Arch's recent developments. Arch has begun to drill test wells which provide core samples of the Otter Creek seam. They have found the formation is approximately 150 feet thick and contains sub-bituminous coal of approximately 8,400 btu value. Mike stated that the Montana's regulatory and permitting environment have been very workable throughout the process. Mike also stated that, once operational, employees of the mine will come from within a 50 mile radius whenever possible, stating, "that just seems like the right thing to do." Mike also touted Arch's safety record as well environmental stewardship record which is amongst the best in the nation. Arch has received multiple awards for their reclamation work. A maximum of six square miles of the seam will be exposed at any given time; as the mine moves along the seam, original topography and reclamation work will be ongoing.

The conference activities came to end with the 8th Annual Energy Open Golf Tournament. Despite a high handicap (provided by Tom and Dustin's average), first-rate teammates Mayor Williams, Commissioner Nesbit, Tom, and Dustin did not win the open. However, Tom did win the Closest to the Basket Shot on eigth hole and Commissioner Nesbit won the Closest to the Buffalo Shot on the fifth hole.

EPDD would like to thank SEMDC, MRED and the good people of Colstrip for hosting us at the 8th Annual Energy Open and we look forward to next year.

Financing Community Renewable Energy Using the Community Model

[Note: This article was provided by Rhyno Stinchfield of GreenWorld Partners in Billings.]

Over the last couple of years--particularly since the credit crunch of 2008-- the financing of renewable energy has taken many twists and turns. There have been increased challenges for developers to secure funding from investors for the construction of wind, solar, and other renewable projects.

The use of the "Community Model" (also known as the Minnesota Flip) for development projects has been a growing solution to these challenges. Though primarily used for wind power this model can be applied to any situation that needs a creative avenue for capital.

The basics of the model are as follows:

- The proposed location for the project is identified.
- A local LLC is formed that will allow the footprint landowners and local investors to participate in the ownership of the project along with the developer.
- Initial site analysis is developed along with environmental fatal flaw and transmission study.

- Before signing leases landowners are allowed to review the analysis report to determine whether the project is viable.
- Landowners and local investors assist in funding the initial development period of the project (prior to construction) in exchange for unit shares in the LLC and future sale of the electricity through the eventual power purchase agreement (PPA) which is typically 20 years.
- Once the project is ready for construction the LLC secures a PPA with a utility off-taker and uses that as the tool to raise construction capital with large institutional investors.
- During the initial years of the PPA the institutional investors will make use of investement tax credits, depreciation and other financial instruments to realize a healthy ROI.
- After this period the profits will resort back to the landowners and other investors who can make considerable profits for being early participants.

This model also has other advantages such as:

- The ease of obtaining project permitting because of local ownership.
- More profits go to the landowners-- as much as twice the income from traditional developments.
- A win-win sense of cooperation amongst all the parties instead of win-lose between the landowner and developer.

New Website and Publications Now Available

The Energy Promotion and Development Division has been working with a number of partners to create new promotional materials as well as update existing publications. A new website, www.montanameansenergy.com, was created with the support of the Governor's Office of Economic Development (GOED). This site offers information for citizens and developers on the opportunities and economic impacts of energy development in Montana.

The EPDD office also worked with the Department of Environmental Quality (DEQ) to deveop new maps highlighting Montana's resources. The two-page map is available on the EPDD website here. In addition, the Montana is Wind Country brochure has been updated, reprinted, and is available online. Further updates to the EPDD energy publications will be completed early this fall.

Finally, the EPDD office provided input on the recently released Western Energy Corridor report completed by the Idaho National Laboratory. This document takes an in-depth look at the energy resources concentrated along the Rocky Mountains and northern plains.

News You Can Use

3 regional biomass projects to share $650K federal grant

A trio of biomass projects in western Montana will share almost $650,000 in federal grants to get their plants ready for construction. The U.S. Forest Service awarded the University of Montana $250,000, Seeley Lake's Pyramid Mountain

Lumber Co. $202,727 and Columbia Falls' Stoltze Land and Lumber Co. $190,720...

Cloud Peak energy signs deal to send more Powder River Basin coal to Asia
The owner of three Powder River Basin coal mines signed a 10-year deal to ship basin coal to Asia from a port on Canada's Pacific Coast. Cloud Peak Energy Inc. signed the deal with Westshore Terminals Limited Partnership to ship coal through its Westshore Terminal in Vancouver, British Columbia.

Federal agency withdraws plan for Montana power line route
The Bureau of Land Management has withdrawn its preferred alternative plan for a proposed power line traveling through western Montana and into Idaho, an official says. Tim Bozorth, field manager for the BLM, said the agency withdrew the plan because it's more than a year old and during that time new cultural and visual concerns arose.

USGS prepares two-year study on Bakken
Three years ago the results of a U.S. Geological Survey of the Bakken Formation came out with a report estimating the formation's undiscovered, technically recoverable oil is 25 times greater than originally thought. Now the agency is gearing up for a two-year study on technically recoverable oil and gas in the Bakken beginning in October amidst urgencies to end the nation's dependence on foreign oil.

Bonneville projects boost wind capacity in northwest
Bonneville Power Administration (BPA) has proposed two power line improvement projects that will allow more electricity produced at wind farms in Montana to flow to markets that need power, the agency said in a release.

Montana Department of Environmental Quality approves American Power Corp.'s prospecting permit application
American Power Corp. is pleased to announce the approval of the prospecting permit for its Pace Coal Project located in Judith Basin County, Montana. On July 29, 2011, the Coal and Uranium Program of the Montana DEQ...

Clinton: TransCanada to upgrade pipeline safety
A Canadian company that hopes to pipe oil from western Canada to Texas is working with U.S. officials to develop safety standards beyond those required by law, Secretary of State Hillary Rodham Clinton said Thursday.

MATL shift protects tepee rings in Cut Bank area
A key route shift in a major power transmission line involving a small piece of property that set off a big fight over eminent domain in Montana has the support of both the developer and the landowner.

Interest grows in Blackfeet Reservation oil and gas exploration
George Sutherland of Cut Bank works 12-hour daily shifts for weeks at a time on a wildcat oil exploration rig, but the $28.50 he earns hourly makes the long days well worth it, he said.

Zinc Air Inc, signs letter of intenet with Juhl Wind Inc.
Juhl Wind Inc. announced it recently signed a Letter of Intent with Zinc Air, Inc. for the installation of a 1 Megawatt

advanced energy storage system developed by Zinc Air. Juhl Wind plans to install the system at its recently acquired Woodstock Hills wind farm located near the Company's headquarters in Woodstock, Minnesota. Zinc Air Inc., based in Kalispell, Montana, is the developer of a Zinc Redox flow battery...

Upcoming Events

Western Wind & Transmission Leadership Summit
September 25-28
Big Sky, MT
http://westernwindsummit.com/